ELSEVIER

Protein Structure & Molecular Enzymology

Vol. 1253, 1995

BBA Biochimica et Biophysica Acta

Cumulative Contents

Information for Contributors *vii*

Rapid Reports

Resonance Raman spectroscopy reveals novel ligation properties of the porcine myoglobin double mutant H64V/V68H
C.L. Anderton, R.E. Hester and J.N. Moore (UK) 1

Hydroxyquinones are competitive non-peptide inhibitors of HIV-1 proteinase
R.I. Brinkworth and D.P. Fairlie (Australia) 5

Processing and activation of recombinant mouse mastocytoma histidine decarboxylase in the particulate fraction of Sf9 cells by porcine pancreatic elastase
S. Tanaka, T. Fukui, J. Yamamoto, Y.-i. Shima, T. Kume, M. Ohgo and A. Ichikawa (Japan) 9

The topology of Cu_A in relation to the other metal centres in cytochrome-*c* oxidase of *Saccharomyces cerevisiae* as determined by analysis of second-site reversions
B. Meunier, A.-M. Colson and P.R. Rich (UK, Belgium) 13

Regular Papers

Bovine pancreatic ribonuclease A as a model of an enzyme with multiple substrate binding sites
M.V. Nogués, M. Vilanova and C.M. Cuchillo (Spain) 16

The ATPase activity of purified CDC48p from *Saccharomyces cerevisiae* shows complex dependence on ATP-, ADP-, and NADH-concentrations and is completely inhibited by NEM
K.-U. Fröhlich, H.-W. Fries, J.-M. Peters and D. Mecke (Germany) 25

A precursor form of human kidney γ-glutamyl transferase in normal and cancerous tissues, and its possible post-translational modification
K. Arai, S.-H. Sumi, K.-i. Yoshida and T. Komoda (Japan) 33

Sucrose reduces the efficiency of protein denaturation by a chaotropic agent
L.S. Taylor, P. York, A.C. Williams, H.G.M. Edwards, V. Mehta, G.S. Jackson, I.G. Badcoe and A.R. Clarke (UK) 39

Inactivation and conformation changes of the glycated and non-glycated D-glyceraldehyde-3-phosphate dehydrogenase during guanidine-HCl denaturation
R.-Q. He, Y.-G. Li, X.-Q. Wu and L. Li (People's Republic of China, UK) 47

Antigenicity of topochemically related peptides
A. Verdoliva, M. Ruvo, M. Villain, G. Cassani and G. Fassina (Italy) 57

Spin-labeling probe on conformational change at the active sites of creatine kinase during denaturation by guanidine hydrochloride
Z.-J. Liu and J.-M. Zhou (China) 63

Fourier-transform infrared spectroscopic investigation of protein stability in the lyophilized form
H.R. Costantino, K. Griebenow, P. Mishra, R. Langer and A.M. Klibanov (USA) 69

Protein modification by the degradation products of ascorbate: formation of a novel pyrrole from the Maillard reaction of L-threose with proteins
R.H. Nagaraj and V.M. Monnier (USA) 75

Kinetics of butyrylcholinesterase in reversed micelles under high pressure
C. Clery, N. Bec, C. Balny, V.V. Mozhaev and P. Masson (France) 85

Effects of mixed solvents on three elementary steps in the reactions of horseradish peroxidase and lactoperoxidase
K. Sato, H. Hasumi, A. Tsukidate, J. Sakurada, S. Nakamura and T. Hosoya (Japan) 94

Specific dinucleoside polyphosphate cleaving enzymes from chromaffin cells: a fluorimetric study
A. Ramos and P. Rotllán (Spain) 103

Stereochemical course of glucan hydrolysis by barley (1 → 3)- and (1 → 3,1 → 4)-β-glucanases
L. Chen, M. Sadek, B.A. Stone, R.T.C. Brownlee, G.B. Fincher and P.B. Høj (Australia) 112

Mechanism-based inactivation of porcine kidney diamine oxidase by 1,4-diamino-2-butene
Z. He, D.V. Nadkarni, L.M. Sayre and F.T. Greenaway (USA) 117

Rapid Reports

Mg- and Ca-actin filaments appear virtually identical in steady-state as determined by dynamic light scattering
R.E. Scharf and J. Newman (USA) 129

The reaction of chicken liver sulfite oxidase with dimethylsulfite
M.S. Brody and R. Hille (USA) 133

Short Sequence-Papers

Clinical isolates of HIV-1 contain few pre-existing proteinase inhibitor resistance-conferring mutations
K. Yamaguchi and R.A. Byrn (USA) 136
Molecular cloning and nucleotide sequence of the 1,2-α-D-mannosidase gene, *msdS*, from *Aspergillus saitoi* and expression of the gene in yeast cells
T. Inoue, T. Yoshida and E. Ichishima (Japan) 141
A new human guanylate cyclase-activating peptide (GCAP-II, uroguanylin): precursor cDNA and colonic expression
O. Hill, Y. Cetin, A. Cieslak, H.-J. Mägert and W.-G. Forssmann (Germany) 146

Review

Inactivation precedes overall molecular conformation changes during enzyme denaturation
C.-L. Tsou (People's Republic of China) 151

Regular Papers

Dimer structure as a minimum cooperative subunit of small heat-shock proteins
I.V. Dudich, V.P. Zav'yalov, W. Pfeil, M. Gaestel, G.A. Zav'yalova, A.I. Denesyuk and T. Korpela (Russia, Germany, Finland) 163
Completion of the thioredoxin reaction mechanism: kinetic evidence for protein complexes between thioredoxin and fructose 1,6-bisphosphatase
I. Häberlein and B. Vogeler (Germany) 169
Effects of substrate binding and pH on the secondary structure of carnitine acetyltransferase
B. Yan, W.R. Mann and P.A. Bell (USA) 175
Occurrence and purification of the photoactive yellow protein of *Ectothiorhodospira halophila* (PYP) and of immunologically related proteins of *Rhodospirillum salexigens* and *Chromatium salexigens* and intracellular localization of PYP
B. Thiemann and J.F. Imhoff (Germany) 181
Inhibition of pig kidney diamine oxidase by nazlinin and nazlinin derivatives
E. Cheng, H.L. Dekker, B.F. Van Gelder and G.-J. Koomen (The Netherlands) 189
The characterization of two aminopeptidase activities from the cyanobacterium *Anabaena flos-aquae*
G.W. Niven (UK) 193
Analysis of the active site and activation mechanism of the *Leishmania* surface metalloproteinase GP63
M.H. Macdonald, C.J. Morrison and W.R. McMaster (Canada) 199
Functional analysis of *E. coli* threonine dehydrogenase by means of mutant isolation and characterization
Y.-W. Chen, E.E. Dekker and R.L. Somerville (USA) 208
MCD, EPR and NMR spectroscopic studies of rabbit hemopexin and its heme binding domain
M.C. Cox, N. Le Brun, A.J. Thomson, A. Smith, W.T. Morgan and G.R. Moore (UK, USA) 215
Purification and characterization of a new serine proteinase from *Bacillus subtilis* with specificity for amino acids at P_1 and P_2 positions
A. Yamagata, N. Yoshida, K. Noda and A. Ito (Japan) 224

Cumulative Contents, Vol. 1253 229

Author Index 231